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ABSTRACT

This is the first annual report of a 3-year exemplary project, financed by the U.S. Office of Education to prove that vocational cooperative education--a community college plan for career preparation through classroom study and off-campus, paid work experience--is an effective solution to the problems of student motivation, educational relevance, and bridging the gap between school and employment. The major objectives specified for the first year of the program were to establish a national demonstration model and to demonstrate the effectiveness of (1) alternate semester, parallel and extended-day plans, (2) recruitment, development and coordination procedures, (3) disadvantaged student recruitment and maintenance, (4) technical, business and paraprofessional manpower recruitment and training, and (5) "outreach" instruction and counseling. Within this framework, 24 lesser goals and objectives were specified for the exemplary program. In all cases the primary governing philosophy was not to prove the concept of cooperative education, but rather to determine the most effective vocational curriculum patterns and procedures. Efforts expended in these directions are reviewed in a discussion of program procedures, first year progress, budget arrangements and program evaluation. (AL)

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FIRST ANNUAL REPORT

Project No. 0-361-0069

Contract No. OEC-0-71-0527(361)

COMMUNITY COLLEGE VOCATIONAL COOPERATIVE EDUCATION

November 1, 1971

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

JC 720 054

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational and Technical Education, Office of Education, United States Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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OVERVIEW OF THE FIRST YEAR

A national demonstration model for vocational cooperative education in community colleges is emerging through an intensive development effort of a consortium of five California community colleges.

The three-year exemplary project, financed by the U. S. Office of Education, with a grant under Part D of the Vocational Education Act, is proving that vocational cooperative education--a community college plan for career preparation through classroom study and off-campus, paid work experience--is an effective solution to the problems of student motivation, educational relevance, and bridging the gap between school and employment.

The five community colleges of the project are in the San Francisco Bay Area and the Los Angeles-San Diego area, two major urban international crossroads of activity for business, communications, transportation, education and government.

The colleges are Cañada, College of San Mateo, and Skyline of the San Mateo College District in Northern California and Orange Coast and Golden West Colleges in the Coast Community College District in Southern California.

In the first year of the exemplary project, results were far better than original expectations:

> A total of 3,095 students participated; three times the 1,000 expected and planned for in the first year.
>
> Student reports consistently tell about the educational advantages of increased learning and better understanding of concepts that result from combining their college studies with on-the-job paid work experience in their chosen career field.

The over 500 employers involved, and 3,095 co-op students participating in the model project illustrate the effectiveness of the cooperative education "laboratories of the community" concept.

Five different approaches to staffing and recruiting emerged to meet the unique community needs and resources of each college in the five college consortium.

Nation-wide attention to the development model was evident from the hundreds of outside inquiries, calls, and visits experienced among the five colleges.

Co-op students generally worked about 30 hours per week, earning an average of $2.64 per hour during 40 weeks for a <u>total combined earnings in excess of eight million dollars</u>. Cooperative education has proved to be the largest financial support program existing at the colleges.

Significant impact was made on the recruitment and retention of the disadvantaged through cooperative education.

Interaction of community college cooperative education students with elementary and secondary school students was made through such means as the environmental education program led by professional naturalists with co-op students serving as teacher assistants for elementary school children in the San Mateo County outdoor environmental education camp, and the food preparation demonstrations by co-op food and lodging technology students of Cañada College for Woodside High School students.

THE PROBLEM

The primary purpose of the vocational cooperative education exemplary project is to establish a substantial national demonstration model for community colleges--to implement a program and develop methods which other colleges can use to start new programs in their areas. To this end, the consortium effort was to reach out to the business and industrial community to establish cooperative education and to prove the effectiveness of the combined school and community approach in a variety of ways.

Cooperative education is a valuable, cost-effective vehicle using "laboratories of the community" to the best advantage of the college, the students and the employers. The combination of high-quality classroom instruction with related community field experience provides young people with educational opportunities which lead directly to productive employment in the community.

The annual report of the first year of the exemplary consortium project shows the progress toward the six program objectives, discusses the problems which arose in establishing and operating the first year of the program, and reviews the program costs and use of budgeted funds.

Among the first year goals was to provide effective coordination, counseling and placement for 1,000 cooperative education students. In the Coast District 1,781 and in the San Mateo District 1,314 actually participated with the result that a considerable stretch of staff and effort was necessary to cover the needs of students and employers. The first year largely was devoted to implementing the program and doing the job. Quantitative data evaluation was difficult to consider the first year under these developmental pressures. A second year goal is to increase the quality and

the quantity of data collection to improve the evaluation of the program's effect.

It has been predicted that 25% of community college students of the 1970s and beyond will enroll in cooperative education programs. There is, therefore, a critical need at this time to establish and evaluate procedures for using this innovative curriculum design effectively in community colleges.

New trends toward relevant experiences for students, emphasis on direct involvement in community, and the need for specialized training opportunities calls for large-scale implementation of cooperative education programs.

Among high-priority career areas where there is a need to bridge the gap between school and employment are the vocational cooperative education programs in technical, business and para-professional occupations which the community colleges are well prepared to develop. This community college plan for career preparation through classroom study and off-campus paid work experience is considered to be one of the ten most valuable community college innovations in the United States today, according to B. Lamar Johnson, nationally-recognized leader of the University of California, Los Angeles (UCLA) Junior College Leadership Program.[1]

In referring to innovations, he states:

> Cooperative work-study education is assuming a role of increasing importance in junior colleges of our nation. This plan is particularly appropriate for the community college. In addition

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[1] Johnson, B. Lamar, Islands of Innovation. Occasional Report No. 6 from UCLA Junior College Leadership Program, Los Angeles, School of Education (UCLA) 1964.

> to helping students achieve occupational competence, an important goal of the two-year college, it re-emphasizes the community personnel and facilities in program planning and operation. In addition, the income students receive from employment makes it possible for many of them to attend college.[2]

Among the most significant evidence relative to development of this exemplary program in vocational cooperative education is the apparent increase in community college student retention through cooperative programs. The San Mateo College pilot demonstration (1967-69) showed that potential dropouts often changed to the cooperative plan to remain in college.

One of the main concerns of community college educators is the large rate of termination and early dropout. The number of two-year completions, as compared to the number who enroll in two-year college programs, is in some cases at the ratio of one in seven. Further exploration will be done in the project to prove the effectiveness of cooperative education in attracting and holding students in community college programs.

Another research area is to study the potential power of television to serve as an "outreach" system for bringing relevant community college education to disadvantaged youth. It is hoped that television programming can be used also to reach into elementary and secondary schools with information about cooperative education as a way of career training.

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[2] Johnson, B. Lamar, Islands of Innovation Expanding: Changes in the Community College, Beverly Hills: Glencoe Press, 1969.

THREE PATTERNS

Three patterns of cooperative work experience education programs have proven to be effective. They are designated as the Alternate Semester program, the Parallel program, and the Extended Day or Evening College program. Each contains a necessary common element--an action link--of coordination between the on-campus, instructional program, and the field experience provided away from school.

The three plans which provide regular work experience related to college studies and career goals of the students are:

Alternate Semester: Two students hold one full-time work station on a year-around basis. During each semester, one student is in school while the other works full-time. Working students may elect to enroll in a limited program of evening classes. No limitation is placed on the location of the work experience. Students may be employed in other states or in distant cities.

Parallel Plan: Students hold part-time, afternoon, evening, or swing shift jobs with appropriate community college class loads.

Extended Day or Evening College New Careers: Special arrangements are made for studies related to full-time employment and new career goals of students. Employers cooperate in work assignments and supervision.

PROGRAM OBJECTIVES

Objective 1. Establish a substantial national demonstration model for community college vocational cooperative education.

Objective 2. Demonstrate the effectiveness of alternate semester, parallel and extended day plans for community college vocational studies which include paid work experience in business, industry and civic agencies of the community.

Objective 3. Prove the effectiveness of recruiting, development and coordination procedures planned for a consortium effort of five California community colleges enrolling 1,000 cooperative education students during the first year of operation with comparable annual increases in numbers during the three years of demonstration.

Objective 4. Prove the effectiveness of vocational cooperative education in recruiting and maintaining disadvantaged students who would not otherwise enter community college vocational programs.

Objective 5. Demonstrate the effectiveness of vocational cooperative education in solving the technical, business and para-professional manpower recruiting and training problems of business and industry.

Objective 6. Demonstrate the effectiveness of television instruction and coordinated instruction systems in providing "out-reach" instruction and counseling for off-campus students in cooperative education with particular emphasis on occupational orientation for elementary and secondary students.

GOALS AND OBJECTIVES ATTAINABLE WITHIN THE SCOPE OF THIS EXEMPLARY PROGRAM

Goals for Student Development will be to:

1. Provide effective counseling and placement of 1,000 students during the first year of operation with corresponding expansion in following years;
2. Measure the performance of students on the job;
3. Increase the effectiveness of classroom instruction by relating it more closely to practical application in the community;
4. Increase the ability of students to cope with an adult environment;
5. Identify and strengthen the ability of students to deal with interpersonal relations;
6. Assist students in adjusting to productivity and creativity in the day-to-day world of work;
7. Help students learn to earn money and to budget expenses;
8. Provide an opportunity to choose a career direction in an environment where information and direction by professional counselors is available;
9. Gain the use of the "laboratories of industry" and to have access to sophisticated equipment that would not be available on the community college campus;
10. Identify future employment opportunities;
11. Make contact with specific employers for work experience;
12. Learn to know and understand the community from a different perspective than is possible from classroom experience; and
13. Develop student initiative, motivation, insight and responsibility through periods of field experience combined with classroom instruction.

Goals for Program Development will be to:

1. Develop plans and procedures for implementing efficiently and effectively a vocational cooperative education program for transfer to other schools;
2. Develop instruments for measuring student progress;
3. Develop methods of special assistance to disadvantaged youth;
4. Identify the major employment areas and prepare students for employment in these areas;
5. Document student performance and skill development in personal interrelationships which may result from the work-school educational plan;
6. Increase the effectiveness of counseling procedures;
7. Increase the effectiveness of job development procedures;
8. Obtain data which will be of assistance in developing more effective programs in vocational cooperative education;
9. Improve the educational programs of the community college by providing more extensive feedback from the community through student employment;
10. Develop effective means for identifying the educational needs of the community through student and employer response rather than abstract planning from reviews of projections; and
11. Develop "open-ended" vocational cooperative education plans which effectively encourage students toward realistic career goals.

GOALS AND PROJECT DESIGN

The validity of cooperative education has been clearly established through programs dating back to the early 1900s. The major effort of the California consortium project is not to prove the concept, but rather to determine the most effective vocational curriculum patterns and procedures which can be of benefit to the majority of students in community colleges.

Cooperative education work experience using the alternate semester, parallel and extended day plans provides a wide variety of experiences for students in many occupational areas.

Students not previously enrolled in vocational programs have the opportunity through community college vocational cooperative education to receive specific training in job entry skills through coordinated instruction systems with direct experience in business, industry and civic agencies of the communities of the San Francisco Bay Region and the Los Angeles-San Diego area.

Students enrolling in the five college consortium for community college cooperative education receive intensive occupational guidance and counseling before and during the period of placement on the job. The California Department of Human Resources is actively cooperating in the placement of students and in encouraging the educational advancement of young employees.

Provision has been assured for carrying on the community college cooperative education programs after completion of the three year funding period through passage of legislation to provide California state apportionment for students enrolled in community college work experience programs under supervised conditions with adequate evaluation.

Through vocational cooperative education students are attracted to career programs because of the employment advantages. An open-ended curriculum arrangement allows these students to move ahead into upper division studies through special arrangements made with California State Colleges for cooperative education students.

Research shows several important factors about cooperative education:

> Students gain a deeper understanding of the relationship between classroom theory and practical application.
>
> Community involvement through direct experience adds a new dimension to the educational process.
>
> College is more attractive to many students because of the combination of work and study.
>
> Productive employment under realistic competitive conditions in a real-life, adult-dominated environment provides students with insights that enrich their educational experience.
>
> Improved employment opportunities are available to graduates as a result of industrial internship experience.
>
> Industry is provided a method for obtaining highly motivated, responsible employees on a regular full-time or part-time basis.
>
> Experience shows that 50-75% of co-op students remain with their employers after graduation.

PROGRAM PROCEDURES

The experiences of a typical student on the vocational cooperative education plan in the community colleges includes participation as a freshman in orientation conferences to prepare for the job that he will undertake after his first campus semester. Together with his advisor he decides upon a job to apply for, after talking over his interests, educational needs, future plans, past

work experience and job openings. He can see other students' reports about the jobs. Students' needs and desires are considered in matching students with available jobs, and placements are made by the cooperative education coordinator.

The student's first job has possibilities for broadening his experience, for self-development and for exploring different careers. A young student may gain poise and command of peoples attention as a museum guide. An insight into the workings of a bank, department store, travel agency, recreation department, government agency or industrial plant may be gained through working in these situations. The work station may serve to provide for student needs in vocational guidance as well as educational growth.

The cooperative plan is not a complex operation. Work periods in the alternate plan are based on the length of the semester. While one student is working, his counterpart is studying on campus. Since students alternate between study and work periods, each job can be filled continuously by a series of qualified students. The parallel and extended day plans do not require student exchanges.

Once or twice each work period a coordinator visits the employer and the student on the job to discuss the employment experience and make arrangements for other students who the employer may wish to hire. The cycle is completed on a year-around basis as two students change jobs at regular intervals or continue to full regular employment.

INSTITUTIONAL DESCRIPTION Cañada College, College of San Mateo and Skyline College of the San Mateo Junior College District--California public community colleges--enroll a total

of 27,500 students with average daily attendance of 13,875.

Located in the San Francisco Bay Region immediately south of San Francisco, the three comprehensive community colleges have each started cooperative education programs using experience resources of the businesses, industries, and civic agencies of the Bay Area. The main restriction to expansion and development has been the limited funding available.

The Bay Region population is in the range of 3.5 million people with 650,000 located in San Mateo County--the service area of these three colleges. Graduates from this district regularly transfer to California's 27 state colleges, the 8 branches of the university system, and to a multitude of private colleges offering upper division studies. Other students begin their careers at the end of two years.

The San Francisco Peninsula, which is the location of the San Mateo Junior College District, is an urban and industrial center, and the location of the San Francisco International Airport which generates many aircraft and transportation service-related businesses and industries.

Coast Community College District serves the more than 500,000 population of southern-central Orange County in Southern California. The total county population is in excess of 1.4 million.

The district enrolls a total of 28,586 students and has an average daily attendance of 16,801.

The aero-space industry, including electrical machinery, is the major employer for the 190,000 work force in the district service area. Other major industry are in the areas of non-electrical machinery such as automotive and tractor manufacturing, and ordnance and aircraft production.

PROGRESS DURING THE
FIRST YEAR

Result 1. ESTABLISH A SUBSTANTIAL NATIONAL DEMONSTRATION MODEL FOR COMMUNITY COLLEGE VOCATIONAL COOPERATIVE EDUCATION

During the first year of the exemplary project, five clearly different approaches to staffing and recruiting emerged among the five colleges to meet the unique community needs and direction of each. The first year development effort in coordination, counseling and placement was planned for 1,000 students. 3,095 students were actually enrolled in the program--three times the number expected.

Among the five colleges, Orange Coast College has enrolled the largest number of vocational cooperative education students. Its first year program totaled more than 1,100 students with staff including a full-time district coordinator, a full-time college coordinator, and, initially, 40 instructors with three units of teacher-coordinator assignment.

Each of the colleges brought its own unique contribution to the project. In the three Northern California colleges, an exemplary development of New Careers Through Cooperative Education Program is provided in the evening college divisions which also serves a minority group target population. The San Mateo and Coast College District's television stations are resources which have much educational potential. The College Readiness Program at CSM, and similar programs at Cañada and Skyline are active efforts to recruit minority students to the colleges and to provide special tutoring, counseling and resources to insure a higher level of success. Similar programs are in operation at Orange Coast and Golden West.

In the first year of the demonstration project in vocational cooperative education, much experience has been gained in the development of student placement and work supervision procedures. Program-coordinators, teacher-coordinators, and other staff personnel have become accustomed to the new procedures of a cooperative work experience program. Students are adjusting to the new combinations of work experience and classroom study. Nationwide attention to the project has been evident from the number of requests for literature, telephone calls, and visits seeking in-depth information about the program through interviews with students, coordinators, and employers.

Result 2. DEMONSTRATE THE EFFECTIVENESS OF ALTERNATE SEMESTER, PARALLEL AND EXTENDED DAY PLANS FOR COMMUNITY COLLEGE VOCATIONAL STUDIES WHICH INCLUDE PAID WORK EXPERIENCE IN BUSINESS, INDUSTRY AND CIVIC AGENCIES OF THE COMMUNITY.

Many interesting work stations for students have emerged as the result of hard work and creative imagination on the part of coordinators in developing experience opportunities in business and industry.

Some examples are the U. S. Geological Survey, where the cooperative education student monitors earthquake recording equipment, and the Pacific Coast Stock Exchange, where the student is a board marker and works on the exchange floor.

Major hotels, such as the Fairmont in San Francisco employ many food and lodging technology students in cooperative education. Work stations for food and lodging technology majors also have been developed at veterans and convalescent hospitals where students assist with food preparation, menu planning and patient care.

The International Airport in San Francisco and the extensive aerospace and electronics industry in Southern California have generated a wide range of related industry job stations for cooperative education students. Among these are the Otis Elevator Company in Los Angeles, first alternate semester employer working with Orange Coast College. Students in work stations at Otis are technicians, and electronics and elevator repair assistants. At the San Francisco International Airport, students work as aviation mechanics and have work assignments as ramp technicians. Industries such as Cadillac Controls now have work stations in cooperative education for numerical controlled milling machine operators and lathe trainees. Co-op students also are in technical training work stations at Stanford Linear Accelerator and Xerox Corporation.

Cooperative Education coordinators have developed work stations in public and non-profit organizations such as San Mateo County and the City of San Mateo engineering departments where students assist with the public engineering work. Students with recreation career and science interests have been placed in a number of interesting jobs including those as junior naturalists with the San Mateo County Outdoor Education Camp.

The fields of law enforcement and criminal justice have yielded a number of cooperative education jobs including placement as cadets in city, county and state law enforcement agencies. Health service careers are a large employment area and many co-op students are working as assistants in medical and dental offices. Retail stores in food and merchandise employ co-op students as sales and management trainees.

Each program is designed to provide a student with a ratio of 3:12 credits--three credits of vocational co-op education credit as he completes 12 units of college credit in regular programs of instruction which are related to his career goals.

NUMBER OF STUDENTS ENROLLED IN COOPERATIVE EDUCATION
(By Divisions)
Spring 1971

COLLEGE OF SAN MATEO	
Business	408
Education	77
Home Economics	23
Aeronautics	34
Technology	45
Recreation	21
Journalism	5
Art	12
Police Science	15
Library Science	3
Hospitality Careers	2
Social Service	20
Fire Science	1
Engineering	3
Medical	28
Science	1
Work Study	47
TOTAL	745

SKYLINE COLLEGE	
Business	77
Social Science	56
Recreation	35
Physical Science	63
English	18
General	22
TOTAL	271

CAÑADA COLLEGE	
Miscellaneous Co-op	120
X-ray	5
Police Science	16
Business	30
Sociology	17
Education	43
Psychology	26
Food Technology	21
Home Economics	20
TOTAL	298

COLLEGE OF SAN MATEO	745
SKYLINE COLLEGE	271
CAÑADA COLLEGE	298
TOTAL:	1,314

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NUMBER OF STUDENTS ENROLLED IN COOPERATIVE EDUCATION
(By Divisions)
Spring 1971

ORANGE COAST COLLEGE	
Business	473
Communications & Education	135
Allied Health	77
Technology	255
Counseling & Guidance	53
Agriculture	20
Art	33
Recreation	18
Math and Science	4
TOTAL	1,068

GOLDEN WEST COLLEGE	
Recreation	21
Allied Health	1
Math & Science	24
Fine and Applied Arts	18
Communications & Education	7
General Business	327
Social Science	251
Technology	64
TOTAL	713

ORANGE COAST	1,068
GOLDEN WEST	713
	1,781

TOTAL COOPERATIVE EDUCATION ENROLLMENT
IN FIVE COLLEGE CONSORTIUM, SPRING, 1971

COLLEGE OF SAN MATEO	745
SKYLINE COLLEGE	241
CAÑADA COLLEGE	298
ORANGE COAST	1,068
GOLDEN WEST	713
TOTAL:	3,095

Result 3. PROVE THE EFFECTIVENESS OF RECRUITING, DEVELOPMENT AND COORDINATION PROCEDURES PLANNED FOR A CONSORTIUM EFFORT OF FIVE CALIFORNIA COMMUNITY COLLEGES ENROLLING 1,000 COOPERATIVE EDUCATION STUDENTS DURING THE FIRST YEAR OF OPERATION WITH COMPARABLE ANNUAL INCREASES IN NUMBERS DURING THE THREE YEARS OF DEMONSTRATION.

Results of the first year's effort in cooperative education enrollment were far and above expectations. Enrollment reached 3,095 students among the five colleges, three times the number planned for during the first year.

A wide variety of experiences is provided for students through job development which has occurred as the result of the extensive background of career experience among the cooperative education personnel at each of the five colleges.

At College of San Mateo, for example, the Co-op program has the services of one of the early graduates of Antioch College in Ohio, one of the earliest cooperative education programs. Lowell E. Mainland is now retired after 41 years with the J. Walter Thompson Company. He retired as vice president of the company and now is contributing his years of experience and enthusiasm for the co-op concept to the CSM program on a part-time basis. Mr. Mainland believes that by the cooperation of the employer and the college, the employer begins to feel his new valuable role in education through coordination of job and academic training. He becomes a "professor" on the job, and the students gain the practical knowledge of his experience in how to work effectively in a career situation.

Result 4. PROVE THE EFFECTIVENESS OF VOCATIONAL COOPERATIVE EDUCATION IN RECRUITING AND MAINTAINING DISADVANTAGED STUDENTS WHO WOULD NOT OTHERWISE ENTER COMMUNITY COLLEGE VOCATIONAL PROGRAMS.

Special coordination efforts to recruit and maintain disadvantaged students are proving successful. This feature of the project is extremely effective in maintaining the disadvantaged student in college as well as

improving his understanding of the value of education to the world of work.

One of the problems faced by community colleges is how to maintain an open-door policy for disadvantaged young people in such a way that it does not become a revolving-door procedure. The open-door plan is the heart of the community college movement in the United States.

In the project, special resources and counseling procedures are being developed to counteract the problem of disadvantaged students having to drop out of college because of financial reasons or dissatisfaction with general college studies programs which do not lead quickly to full employment opportunities. Applying the cooperative education concept to the open-door policy is proving to be an effective means of combining the best resources of the community college and of business, industries and public agencies to meet the problem of disadvantaged student retention.

Result 5. DEMONSTRATE THE EFFECTIVENESS OF VOCATIONAL COOPERATIVE EDUCATION IN SOLVING THE TECHNICAL, BUSINESS AND PARA-PROFESSIONAL MANPOWER RECRUITING AND TRAINING PROBLEMS OF BUSINESS AND INDUSTRY

A substantial variety of career training areas and interests which include work experience opportunities have developed at each of the colleges in the consortium. A comprehensive array of career study opportunities are now available, many of them developed in response to unique needs and resources of the individual colleges service areas.

At Golden West College, for example, the law enforcement program is the second largest of the work experience areas. The program was developed in cooperation with law enforcement agencies in the community and has been implemented with cooperative work experience to permit officers to learn on the job as well as in college. Four program options are:

(1) inter-departmental experience in which students must serve a minimum of 16 hours during each semester with one or more agencies in the California Criminal Justice System; (2) Intra-Departmental experience which involves service and work with other divisions of the officer's own agency; (3) Term paper research project involving selection of a research project under the guidance of the counselor of a research project in an area of administration of justice; and (4) Administration designated departmental study, which is completion of a project worked out under the direction of the work experience supervisor.

At Cañada College a comprehensive management program has been developed under an extended day arrangement in which persons with full-time jobs can complete a management degree program through evening course work. Management training is offered in such areas as business, industrial, small business, public administration and supermarket management.

Result 6. DEMONSTRATE THE EFFECTIVENESS OF TELEVISION INSTRUCTION AND COORDINATED INSTRUCTION SYSTEMS IN PROVIDING "OUTREACH" INSTRUCTION AND COUNSELING FOR OFF-CAMPUS STUDENTS IN COOPERATIVE EDUCATION WITH PARTICULAR EMPHASIS ON OCCUPATIONAL ORIENTATION FOR ELEMENTARY AND SECONDARY SCHOOL STUDENTS

Work is in the creation and circulation of materials to elementary and secondary schools to interest the students at those levels in the concept of college opportunity through the cooperative education plan. Broad range occupational orientation is being developed in Northern California through the facilities of the San Mateo College District open-channel television station (KCSM), which has a transmission area encompassing the San Francisco Bay Region. The Coast District is providing components of the TV programming.

At Skyline College cooperative education students have had the unusual opportunity to experience work in vocational guidance for handicapped elementary school children. Cooperative education serves, in addition, as a vocational training goal for the handicapped students as they progress in elementary and high school.

Five Skyline cooperative education students worked during their first year as co-op public service career teacher's aides at Palos Verdes School for handicapped students, located within one mile of Skyline College. The college students were under the supervision of Thomas Saltz, public service career instructor. The school has 105 trainable mentally-retarded students who range in age from five to twenty-one years. The relationship of the cooperative education students to the children often was a one-to-one basis with the emphasis always on helping the child to learn to do a task himself. As examples, some cooperative education students helped children learn simple gardening or prepared supplies for the Palos Verdes teachers.

Joseph Marx, principal and Paul Kinney, teacher at Palos Verdes, have high praise for the caliber of Public Service Career cooperative education assistance Skyline College students have given the school's pupils.

PROBLEMS ENCOUNTERED

Success beyond the most favorable expectations has produced problems for the cooperative education program budget. This occurred at the same time as program recognition has developed on a state and national level beyond present abilities to serve in an exemplary capacity.

The primary target of the program was to develop a substantial demonstration with a goal of 1,000 students enrolled in community college

work experience off-campus jobs in business and industry. During the first semester of operation, when a slow start might be expected, there was instead a very substantial interest in the program which resulted in more than 2,000 students placed in off-campus work stations.

The immediate critical problem for the project, therefore, was to gain increased funding through additional project writing and local effort to cope with the enthusiastic response of students to this new kind of vocational education. There is no doubt now about the validity of community college vocational cooperative education as a necessary and vital part of community college offerings of the future.

Students in the field should be supervised adequately, and should receive the kind of counseling and coordination proposed in the original innovative design before budget reductions. The cost per student of the project--now less than $80 each--is so minimal for the kind of community college education being undertaken that the quality factor must be seriously considered.

Faculty involved with the program are providing service well beyond that which would be expected. Great enthusiasm for the program is being demonstrated with innovative ideas for new developments being expressed and implemented daily. This kind of momemtum can be maintained, however, only if adequate resources are added to maintain quality supervision, counseling and evaluation of student progress.

As the program grows we anticipate that there will be added the burden of more visitors to the program. This essential responsibility of sharing program information requires professional time and talents. New staff should be added to deal with these vital responsibilities.

BUDGET ARRANGEMENTS FOR CONSORTIUM OPERATION

NORTHERN AND SOUTHERN CALIFORNIA COMPONENTS

The basic agreement from the beginning of planning and development of the project has been provision for an exact equal division of project funds between the San Mateo Junior College District in Northern California and Coast Community College District in Southern California.

This equal division of funds for the three year term of the project serves to the mutual advantage of both institutions. The initial development of the project was made possible through a proposal for large-scale demonstration. Independent development with close coordination north and south serves to the advantage of the total project. A spirit of competitiveness and mutual support with sharing of ideas is proving to be a highly-effective procedure for program implementation.

1971-72 BUDGET

The original proposal called for funding at a substantially higher level than was actually received. However, the decision was made to move forward into the program with enthusiasm and to seek additional support in every possible way.

For 1971-72 Federal support in the amount of $211,413 is to be divided equally--$105,706 to the San Mateo District and $105,706 to the Coast District--to move the project through the second year of operation.

BUDGET FOR FIVE COLLEGE CONSORTIUM IN VOCATIONAL COOPERATIVE EDUCATION

Director: Dr. Robert L. Bennett
Beginning and Ending Dates: July 1, 1970 to June 30, 1973
Budget for 1971-72 and 1972-73

Applicant: San Mateo Junior College District and
Orange Coast Junior College District

Project Number: 0-361-0069
Contract Number: OEC-0-71-0527 (361)

Eighty percent (80%) of the financial support for the five colleges in this consortium is received from local taxpayers. State and Federal sources combined provide only twenty percent (20%). For purposes of clarity only, the Federal share for this project is shown on budget page.

CATEGORY	1971-72	1972-73	TOTAL
A. Direct Costs			
Director (40% to project)	$9,600.	$9,600.	$19,200.
Coordinator/Instructors Cooperative Education 32 professionals @ 2/5 assignment for job development, supervision counseling, TV production, and other duties	140,613.	140,613.	281,226.
Secretary	6,624.	6,624.	13,248.
B. Employee Benefits	1,932.	1,932.	3,864.
C. Mileage and Travel for Coord./Instructors Job Development and supervision @ .10 per mile	9,384.	9,384.	18,768.
D. Office Supplies	2,070.	2,070.	4,140.
E. Communications included in indirect costs	-0-	-0-	-0-
F. Film and tape processing	2,208.	2,208.	4,416.
G. Report production	828.	828.	1,656.
H. Auto-tutorial, slide-tape, photo and projection equipment	3,864.	3,864.	7,728.
I. Conference, In-service Training Expenses, Evaluation	3,036.	3,036.	6,072.
Consultants	1,104.	1,104.	2,208.
Television Studio Production Costs: Elementary and Secondary Vocational Guidance	14,490.	14,490.	28,980.
J. Sub-Total	195,753.	195,753.	391,506.
Indirect Costs @ 8% (See Justification Sheet)	15,660.	15,660.	31,320.
TOTAL COSTS	$211,413.	$211,413.	$422,826.

SPECIAL FUNDING PROVISIONS

Eighty percent (80%) of the funds budgeted for the five community colleges of this consortium each year come from the local taxpayer. Probably no other public higher education institution in the nation exceeds this rate of local contribution and effort for its students. For this reason it is difficult to reach out to develop areas of service that will be of exemplary value to other institutions. The primary effort of this vocational cooperative education application is to use funds which will not only allow these five institutions to improve services in instruction, administration and student services for the students in this area, but also enable others to follow the same pattern. A small sum of outside dollars is multiplied manifold through this investment in locally-supported community colleges.

INDIRECT COST CALCULATIONS BASED UPON DISTRICT STANDARDS

Building Operation and Maintenance, Insurance	5%
Administrative Support Services	5%
Faculty Support Services	2%
Fringe Benefits	4%
Communications and Advertising	3%
	19%

19% Total. 8% maximum requested.

Indirect costs limited to 8% for this project.

EVALUATION TEAM

Individual Learning Systems of San Rafael, California, was designated as the independent evaluation agency to conduct the first annual examination of progress in the COMMUNITY COLLEGE VOCATIONAL COOPERATIVE EDUCATION exemplary program.

Evaluation team members employed by Individual Learning Systems for this exemplary project:

Dr. A. Daniel Peck, Chairman of Evaluation Team. Specialist in educational development and program evaluation, San Francisco State College and Individual Learning Systems.

Miss Barbara Washburn, Specialist in program development with the U. S. Office of Economic Opportunity, Washington, D.C. Consultant in educational program development and student personnel interviewing for program evaluation.

Mr. Charles Mob[illegible], senior marketing consultant for Individual Learning Systems. Specialist in program evaluation for disadvantaged students, programmed learning systems development and cooperative interaction with business, industry, and community colleges.

Mr. Freeman Elzey, specialist in innovative program development, San Francisco State College. Consultant in evaluation procedures including programs relating to elementary and secondary school instruction, guidance activities and programmed instruction.

EVALUATION PROCEDURE

The evaluation team at the request of the Project Director agreed to provide a third-party evaluation of the Cooperative Education Project of the Five College Consortium. The team was given the opportunity to structure the evaluation at its discretion and was provided access to and cooperation from all of the colleges and their personnel.

The evaluation visitation required two days, the first spent at the San Mateo Colleges and the second at the Coast Community Colleges in Costa Mesa.

After an initial briefing by the Project Director, the team visited Cañada College, College of San Mateo, and Skyline College. Interviews were arranged with administrators, coordinators, students, teachers and employers. A series of group interviews was followed by individual interviews by each member of the team with selected personnel from each of these categories and a perusal of appropriate records.

The second day the team flew to Costa Mesa where the procedures used at the San Mateo Colleges were utilized for group and individual interviews and inspection at Orange Coast College and Golden West College.

After each day of inspection and interviews the team met in conference to collect information and compare notes. The evaluations which follow are the results of these processes.

Sampling

Students were selected for interviews from a group provided by the school coordinators on the basis of 1) their availability according to their schedules, 2) need for a significant number of disadvantaged students, 3) represenation of a wide variety of placements. Ninety-seven students were interviewed in the two days.

Coordinators were selected on the basis of 1) schedule availability, 2) mention by students, 3) interest in special programs. Twenty-six coordinators/teachers were interviewed during the evaluation period.

Employers were those who could come to the colleges for interview, since travel of the team was limited by available time. At each of the colleges, however, there was a good representation of industry and public service agency employers. In all, 21 employers were interviewed.

Job sites inspection was limited to those areas within or associated with the colleges which employed coop students in tutorial, food service, secretarial or technological capacities.

Evaluation Summary

This project presents ample evidence that co-operative education can provide an effective means for vocational education. The five colleges which make up the consortium show a wide variety of successful ways to meet the requirements of both industry and the schools. The diverse socio-economic, ethnic, and occupational combinations offer positive examples for almost any college to follow. Records of situtions, occupations, student reactions, co-ordination activities, job placements, administrative organization, time and work allotments are available to provide comparison with a variety of conditions in community colleges. Thus the project's solutions to problems are highly exportable.

The extent to which the co-op program has been effective in vocational education of the disadvantaged and ethnic minorities is encouraging. Particularly in the working-with-people occupations is this apparent. The evaluation team was impressed that time after time the social service co-op students demonstrated enhanced self-images and enjoyed new respect from their peers. The realistic employment aims of most of them were raised by the exposure to simultaneous work and study. The percentage of disadvantaged and ethnic minorities in the program exceed the general population percentages. Even so each of the colleges has plans for increasing recruitment of these special categories.

The respect employers show for the co-op programs continues to increase as they are exposed to it. This is evident both from their statements and the fact that in a scarce job market placements are increasing rather than decreasing. Their reaction can be expected to continue to be more favorable and to encourage a wider variety of employers to come into the program. A gratuitous bonus has appeared in the employer's broader understanding of the college student in general because of the positive interaction experiences. Employers tend to be less prone to make quick judgments on the basis of length of hair and kinds of clothes.

That the need for para professionals in social service can be alleviated through these programs is clearly shown by the success of the several reviewed. Teacher aids and those who work with children were shown as highly effective and pleased with their work. Job choices and training were both affected positively.

The project is in general a commendable success both as an educational venture and a series of highly exportable examples for others.

EVALUATION IN RELATION TO OBJECTIVES

Objective 1. Establish a substantial national demonstration model for Community College Vocational Cooperative Education.

It is apparent that the project has established a model for Community College Vocational Cooperative Education. There are many aspects of it which are not unique but which together with other qualities make it exportable. Within the model there are a variety of ways which may provide identification with almost any college employment situation wherever it is and which are visibly effective. As a prime example the role of the coordinator is seen as one key to a successful program. The project has a variety of successful modes of program/coordinator interaction from which to choose as college situations are matched.

The successful use of students in social service work situations is a unique but truly exportable feature. In this part of the program the success with several levels of disadvantaged students and interaction with community agencies provide an excellent example.

The basic administrative structure makes apparent the uses of personnel in a variety of interactive modes from which it is possible to choose on the basis of comparability that which is most adaptable to one's own situation. The teacher/coordinator role can be analyzed within this structure in its relation to curriculum development, task assignment, employment area correlation, and student interaction. Because of the project's particular location, its unique relationship to the minorities and disadvantaged can be assessed together with the techniques employed. These then are usable in other locations and at other colleges.

Objective 2. Demonstrate the effectiveness of alternate semester, parallel and extended day plans for community college vocational studies which include paid work experience in business, industry and civic agencies of the community.

While the Alternate Semester Plan needs more development, its history in this situation is a necessary example. Each of the other plans provide exemplars of successful application with clearly visible advantages and problems. Because of the wide diversity of application of each of the plans, comparability with almost any situation is provided.

Objective 3. Prove the effectiveness of recruiting, development and coordination procedures planned for a consortium effort of five California community colleges enrolling 1,000 cooperative education students during the first year of operation with comparable annual increases in numbers during the three years of demonstration.

The differential success of the recruitment processes at the various colleges should give some indications of areas of emphasis for other colleges and programs. Admittedly this needs more careful study and means of recording effects for exportability.

Objective 4. Prove the effectiveness of vocational cooperative education in recruiting and maintaining disadvantaged students who would not otherwise enter community college vocational programs.

Statements of students, coordinators, employers and others give ample evidence of success in this endeavor but also provide some usable opportunities for improvement of practices. The high potential drop-out rate and the low actual rate of drop-outs indicate that the program has usable means of maintaining effective participation of disadvantaged students. Continued study and analysis of these are necessary to the solution of a variety of problems for which this program can provide exemplars. Longitudinal study of these is essential.

Objective 5. Demonstrate the effectiveness of vocational cooperative education in solving the technical, business and paraprofessional manpower recruiting and training problems of business and industry.

In the social service areas this project has made significant progress in achieving successful interest and action in the development of paraprofessionals to assist in schools, clinics, and other social agencies. It is an excellent beginning, but needs a longer history of success to provide effective exportable examples.

Objective 6. Demonstrate the effectiveness of television instruction and coordinated instruction systems in providing "out-reach" instruction and counseling for off-campus students in cooperative education with particular emphasis on occupational orientation for elementary and secondary school students.

Work in this area is effectively underway with two slide-

tape presentations completed and six more in script stages. This is an understandably lengthy process requiring high levels of output from currently busy staff. During the Spring and Summer these presentations should be completed. Production of broadcast quality video tapes is in planning stages and will be in production stage during the Summer.

Plans include presentations which are being designated to meet current difficulties in reading and visualizing which often hinder disadvantaged students. Program material will be adjunctive to several of the vocational areas as well as dealing directly with common communicative problems. Some of the projected programming also includes courses which will be available to a large segment of the community not now interacting with the colleges. Since it will be designed to deal with upgrading currently employed workers, (as well as providing occupational information for pre-college students) it should extend the "out-reach" capability considerably.

Cooperative Education

Employer Evaluation of Student On-The-Job Performance

(N = 650 student evaluations)

		Value to the Employer Measured on a 5.00 Judgment Scale	
RELATIONS WITH OTHERS	Exceptionally well accepted		34%
	Works well with others		56%
	Gets along satisfactorily	4.22	9%
	Difficulty working with others		1%
	Works very poorly with others		——
JUDGMENT	Exceptionally mature		21%
	Above average in making decisions		37%
	Usually makes the right decision	3.79	41%
	Often uses poor judgment		1%
	Consistently uses bad judgment		——
ABILITY TO LEARN	Learns very quickly		41%
	Learns rapidly		42%
	Average in learning	4.24	16%
	Rather slow to learn		1%
	Very slow to learn		——
ATTITUDE APPLICATION TO WORK	Outstanding in enthusiasm		23%
	Very interested and industrious		57%
	Average in diligence and interest	4.00	17%
	Somewhat indifferent		2%
	Definitely not interested		1%
DEPENDABILITY	Completely dependable		43%
	Above average in dependability		33%
	Usually dependable	4.18	21%
	Sometimes neglectful or careless		2%
	Unreliable		——
QUALITY OF WORK	Excellent		35%
	Very good		51%
	Average	4.21	14%
	Below average		——
	Very poor		——
OVERALL RATING	Excellent		34%
	Very good		53%
	Average	4.10	11%
	Marginal		1%
	Poor		——
ATTENDANCE	Regular		97%
	Irregular		3%
PUNCTUALITY	Regular		97%
	Irregular		3%

COLLEGE OF SAN MATEO

DEPARTMENT OF CO-OPERATIVE EDUCATION

SAN MATEO, CALIFORNIA

STUDENT REPORT

(TO BE FILLED OUT BY STUDENT)

INSTRUCTIONS: The student should complete this portion of the report form and leave it with the employer for his evaluation. The employer should mail this form to the College in the accompanying self-addressed envelope.

Date August 15, 1971

Name Smith (Last), James (First) R. (Middle)

College San Mateo Major Aeronautics Year Soph Division A

Employing Firm S.F. Bay Airlines

Department Maintenance Job Title Stock Clerk

Supervisor's Name R. Jones Title Mgr.

Attendance: Time Late 0 Reason —
Times Absent 1 Reason Illness

Gross Pay: Hour $2.21 Gross Pay
Week $88.40 Full Period $1149.20

Brief Job Description:

I am in charge of ordering & stocking of parts & materials for the maintenance division.

Comments:

For my next Coop assignment I have been advanced to the engine repair division.

EMPLOYER'S EVALUATION

(TO BE FILLED OUT BY EMPLOYER)

The employer will please express his candid opinion of this student as a worker in his employ. Criticisms and comments are earnestly solicited. This information will be utilized by the co-ordinator for the guidance of the student.

RELATIONS WITH OTHERS
- [X] Exceptionally well accepted
- [ ] Works well with others
- [ ] Gets along satisfactorily
- [ ] Has some difficulty working with others
- [ ] Works very poorly with others

ATTITUDE — APPLICATION TO WORK
- [ ] Outstanding in enthusiasm
- [X] Very interested and industrious
- [ ] Average in diligence and interest
- [ ] Somewhat indifferent
- [ ] Definitely not interested

JUDGMENT
- [ ] Exceptionally mature
- [X] Above average in making decisions
- [ ] Usually makes the right decision
- [ ] Often uses poor judgment
- [ ] Consistently uses bad judgment

DEPENDABILITY
- [X] Completely dependable
- [ ] Above average in dependability
- [ ] Usually dependable
- [ ] Sometimes neglectful or careless
- [ ] Unreliable

ABILITY TO LEARN
- [ ] Learns very quickly
- [X] Learns rapidly
- [ ] Average in learning
- [ ] Rather slow to learn
- [ ] Very slow to learn

QUALITY OF WORK
- [X] Excellent
- [ ] Very good
- [ ] Average
- [ ] Below average
- [ ] Very poor

ATTENDANCE: Reg. [X] Irreg. [ ] **PUNCTUALITY** Reg. [X] Irreg. [ ]

OVERALL RATING: Excellent [X] Very Good [ ] Average [ ] Marginal [ ] Poor [ ]

COMMENTS (over if necessary)

Jim has proven to be an excellent employee. He is now in line for advancement.

(Signed) Robert N. Jones
(Company Representative)

This report has been discussed with the student Yes [X] No [ ]

COMMENTS FROM EMPLOYERS, COORDINATORS AND STUDENTS

Student, coordinator and employer reaction to the cooperative education approach to career training is clearly indicated in the comments and evaluative statements received on the consortium project.

News articles in northern and southern California newspapers (see pages 44-49) report that the project is working out well for both the colleges and the communities.

Student comments frequently mirror the feelings of one participant who pointed out, "I gained some insight regarding my company and my job in dealing with others. I can also appreciate some of the management's problems of today. I gained a lot through my association with fellow students and, as always, you learn through listening and by doing."

OTHER COMMENTS:

Gives the student a chance to sit down and talk with other working students about the working world and not necessarily what we hear about in our other classes.

Co-op Ed proved to be an incentive to gain more knowledge as to my vocation and by doing so, motivated me toward higher goals.

It gave me a chance to think and investigate new areas in my own field.

Adds to credit for AA. Develops an interest in your profession which gives the opportunity to see your theory in reality and if your research was correct. A chance to see the final result.

I think there needs to be a closer contact between co-op teachers and the boss, or superior, of the student. Otherwise, I think the program is great! Keep up the good work!

Perhaps a short session at the end of the course would be beneficial in that all the students could compare notes on what they have realized out of the various companies involved. For example, if they were going to receive promotions or a pay increase, etc.

ORANGE COAST COLLEGE: PERFORMANCE APPRAISAL

Employer Evaluation

RELATIONS WITH OTHERS

160	Exceptionally well-accepted
236	Works well with others
42	Gets along satisfactorily
6	Has some difficulty working with others
0	Works very poorly with others

ATTITUDE-APPLICATION TO WORK

115	Outstanding in enthusiasm
252	Very interested and industrious
61	Average in diligence and interest
7	Somewhat indifferent
0	Definitely not interested

JUDGMENT

80	Exceptionally mature
204	Above average in making decisions
150	Usually makes the right decision
10	Often uses poor judgment
0	Consistently uses bad judgment

DEPENDABILITY

233	Completely dependable
155	Above average in dependability
41	Usually dependable
8	Sometimes neglectful or careless
1	Unreliable

ABILITY TO LEARN

209	Learns very quickly
181	Learns rapidly
50	Average in learning
6	Rather slow to learn
0	Very slow to learn

QUALITY OF WORK

179	Excellent
209	Very good
42	Average
6	Below average
9	Very poor

ATTENDANCE:

Regular	438
Irregular	5
Not Applicable	5

PUNCTUALITY:

Regular	403
Irregular	13
Not Applicable	32

	Excellent	Very Good	Average	Marginal	Poor	Not Applicable
OVERALL RATING:	166	220	39	5	3	5

ORANGE COAST COLLEGE: EMPLOYER EVALUATION

We are interested in how well you think the college is preparing this student to work in the field in which he is working for you. May we ask you to please check the appropriate boxes?

ON-THE-JOB SKILLS

160 Learned mostly on the job.
121 Student has some skills he has not learned on the job.
191 Student has many skills he has not learned on the job.
63 Student came on the job very well-prepared, has required little or no on-the-job experiences.
5 Student has not learned the needed skills for this job and needs to learn.

GENERAL ABILITY AND ATTITUDE AS A WORKER

238 Student was a good worker when he came on the job.
168 Student has improved as a worker primarily as a result of on-the-job experiences.
20 Student has improved as a worker primarily as a result of other than on-the-job experiences
12 Student has not improved as a worker, and needs to improve.

STUDENT'S WORK HABITS

220 Have improved because of on-the-job experiences
43 Have improved because of other than on the job experiences
12 Have not improved and need improvement
155 Were good when he came on the job.

PREPARATION FOR ADVANCEMENT AND GREATER RESPONSIBILITY

196 The student is now qualified for advancement to a job requiring greater responsibilities and has earned this qualification primarily as a result of his:
- 109 college program
- 76 on-the-job training at this place of employment
- 11 other training or experience

331 The student is preparing himself satisfactorily for advancement primarily because of his:
- 224 college program
- 103 on-the-job training at this place of employment
- 4 other training or experience

12 The student is not making satisfactory progress toward preparing himself for advancement.

ORANGE COAST COLLEGE: PERFORMANCE APPRAISAL

Student Report

WORK HABITS (Thoroughness, punctuality, initiative, etc.)

398 My work habits have improved:

- 174 Primarily as a result of my college program
- 208 Primarily as a result of my on-the-job experience
- 16 Primarily as a result of activities not related either to college or to my current job experiences.

86 My work habits have not changed while I have been working at my current job.

PREPARATION FOR ADVANCEMENT AND GREATER RESPONSIBILITY

471 I feel that I am better prepared for advancement and for greater responsibility:

- 300 Primarily as a result of my college program
- 160 Primarily as a result of my on-the-job experience
- 11 Primarily as a result of activities not related either to college or to my current job experiences

12 I have not become more prepared for advancement while I have been working at my current job.

CAREER PLANS

395 My personal career plans have become more firmly settled in the occupation in which I am now working:

- 243 Primarily as a result of my college program
- 136 Primarily as a result of my on-the-job experience
- 16 Primarily as a result of activities not related either to college or to my current job experiences

88 I have decided to alter my career plans:

- 58 Primarily as a result of my college program
- 17 Primarily as a result of my on-the-job experience
- 13 Primarily as a result of activities not related either to college or to my current job experiences

69 My present job and college program have had no effect on my career plans.

ORANGE COAST COLLEGE: EVALUATION QUESTIONS

	Responses	
	Student	Employer
ON-THE-JOB SKILLS		
Learned mostly on the job.	164	160
Student has <u>some</u> skills he has not learned on the job	269	121
Student came to the job very well-prepared, has required little or no on-the-job training	43	63
Student has not learned the needed skills for this job and needs to learn	0	5
GENERAL ABILITY AND ATTITUDE AS A WORKER		
Student has improved as a worker primarily as a result of on-the-job experiences	260	168
Student has improved as a worker primarily as a result of other than on-the-job experiences	206	20
Student was a good worker when he came to the job	24	250
PREPARATION FOR ADVANCEMENT AND GREATER RESPONSIBILITY		
The student is now qualified for advancement to a job requiring greater responsibilities and has earned this qualification primarily as a result of his:		
college program	300	109
on-the-job training at this place of employment	160	76
other training or experience	11	11
THE STUDENT IS PREPARING HIMSELF SATISFACTORILY FOR ADVANCEMENT PRIMARILY BECAUSE OF HIS:		
College Program	300	224
On-the-job training at this place of employment	160	103
Other training or experience	11	4
The student is not making satisfactory progress toward preparing himself for advancement	12	12
STUDENT'S WORK HABITS		
Have improved because of on-the-job experiences	208	220
Have improved because of <u>other</u> than on-the-job experiences	190	43
Student has not improved as a worker, and needs to improve	86	167

PROGRAM EVALUATION BASED UPON FIELD COORDINATOR REPORTS

Business Merchandising and Management: Cañada College

Interview at Sears with Daniel Menzies and Vanessa Bevel, Personnal Manager. Discussion regarded Eileen Cassidy who is working as a Service Operator at Sears. She handles the following situations:

1. Customer Service - handles incoming calls on service problem of Sears appliances;
2. PBX board which is a very busy one, and takes exceptional tact and judgment on routing calls;
3. Clerical detail on contract maintenance agreement;
4. Miscellaneous typing and filing.

Mr. Menzies stated that Eileen handles customer contact over the phone most effectively. Her clerical work is accurate and she is a fast typist. Also, she readily moves from job to job as required. She has been employed since Nov. 3, 1969 and works 30 hours per week. Menzies is a warm, friendly, outgoing supervisor. Showed me the Sears Maintenance Center and Eileen's environment is good. Seems to be a well-managed operation.

Engineering Technology: Orange Coast

Interview with Don F. Jeffries, Coordinator of Engineering Technology.

"In addition to the originally intended goals of the work experience program, which are apparently being well-fulfilled, several notable examples of extra benefits have been noted by this coordinator.

"Perhaps the most frequent situation (and probably actually foreseen by work experience planners) has been the contact for job possibilities for other students. But a contact, possibly not foreseen, was for obtaining possible instructors for Orange Coast. One of the supervisors visited during initial contacts turned out to have the engineering background, and the desire to handle an extended day class; and another has expressed an interest in teaching certain computer programming techniques. And speaking of programming, I was able, during an extended visit to a local traffic engineering department in connection with the work experience program, to peruse and give suggestions on the programming of a study set up by that city and a federal grant.

"Wording of the cooperative education agreement, according to more than one supervisor, has caused the employer to view the student in terms of his educational development rather than just as an employee--an advantage certainly to the student and also probably to the employer. Also, in at least one case, the form we used in evaluating the students caused a 'meeting of the minds' which the supervisor and student had not previously enjoyed. The supervisor felt that the 'out of the ordinary' meeting with the student for discussion of this form had bridged a communications gap which had been in existence for some time.

"My observation is that the program seems to be of tremendous value to the student and the employer in most cases. It is an excellent source of motivation for scholastic achievement. Frankly, I was amazed at the enthusiasm exhibited by both students and their supervisors."

Air Transportation — "Work experience, after a few false starts went along smoothly in Air Transportation. After the shoe clerk was screened out, and the two 'no shows' disposed of, we proceeded for the most part to have a productive program.

"The principle side benefit noted, appeared to be the opportunity to discuss programs, courses and in general counsel certain of the students scooped up on the program who had not been exposed previously to a full-blast briefing on our programs and their potential.

"In addition, the industry contacts which are generated by the addition of many previously employed troops appear to be an increasingly valuable asset, especially for those of us engaged in vocationally oriented programs.

"As a direct result of last semester's program I have pipelines into two airlines at the selection and working level as opposed to the personnel types with whom I had previously been doing business."

Business — "Essentially most employers seemed delighted to participate in the educational opportunities offered by the Work Experience Program. They felt that the program was needed, justified and long overdue. It was their feeling that they, as well as the students, benefit from the problem. The most frequent comment was that the student employee seemed more highly motivated."

Insurance — "One student I interviewed took me into his office (He is assisting his father in the agency), pointed to all the paperwork overflowing his desk and said, 'At last I'm finding out what's behind all this paperwork!' His father came in also, and remarked that his son was answering customer inquiries much more intelligently, more quickly, and to the satisfaction of the client since he was taking the course. Both were pleased with his progress."

Technical — "Met with Manager of Technical Services at United Air Lines. A co-op student is his secretary and also taking a business course in techniques of supervision. Excellent report on her. By far the best secretary he has had. She transferred from the Medical Department of United Air Lines in Chicago to this job. Big change in technical knowledge required and she made change quite effectively. Evaluation report put this student in the outstanding class."

COAST COMMUNITY COLLEGE DISTRICT

Earn Grades, Salaries, Experience

BY JANE GORMAN
Register Staff Writer

COSTA MESA — More than 1200 Coast Community College District students are learning trades first hand—while getting both college credit and salaries—as a part of the school's Cooperative Work Experience Program.

Seventy instructors at Orange Coast and Golden West College supervise the students participating in the program. These teachers make at least two visits during the semester to the place of employment of each student supervised, in addition to handling full teaching loads.

Coordinators James Garmon at Orange Coast and Karl Strandberg at Golden West report that the response of business and industry in the community has been outstanding. They have had more requests for students than they have been able to fill.

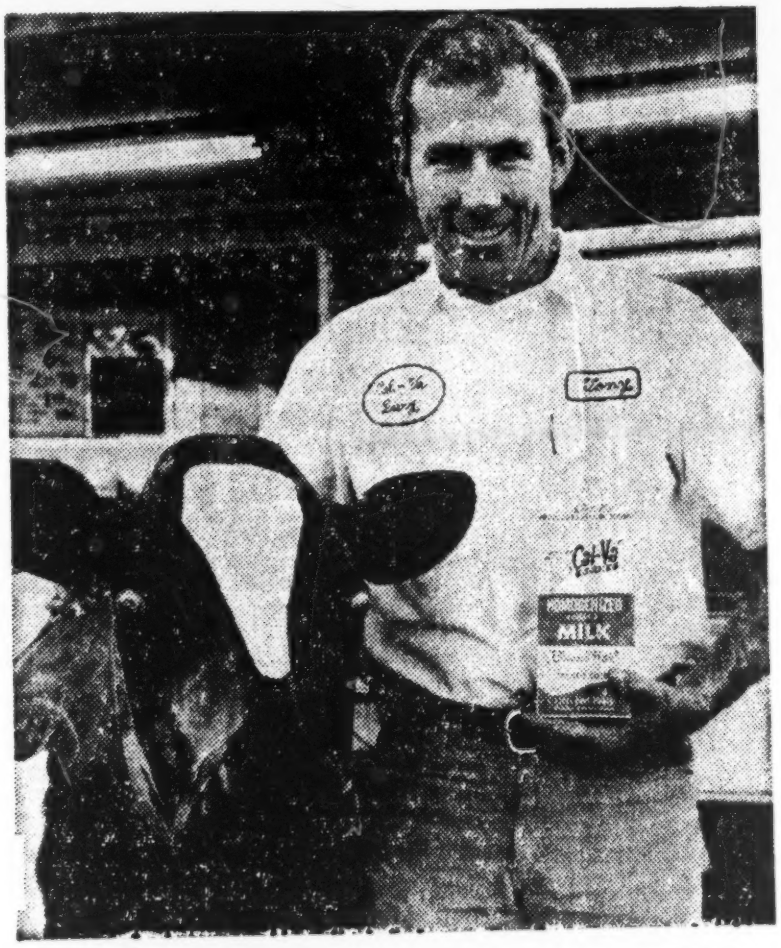
Employers tell both the instructors and the coordinators they are delighted with the program. It not only gives the employers motivated and dependable people, but they feel that the students get much more out of their academic work when they can relate it to work experience. This means better employes for them when the student graduates.

"We had some wonderful experiences out in the community," Garmon said. "These people are delighted to have the college visit their place of business. They want to show you everything. I really think a very important side benefit of this program is that it is bringing a large segment of the community into contact with the campus in a very positive way."

Waugh Redding, who came out of private industry this year to head the district program, said he felt this was a positive way to involve the student with the establishment and vice versa.

Students get one unit of credit for each five hours of work per week during the semester. A maximum of four units—20 hours per week—may be earned each semester.

JACK ROZEAN, LEFT, TEACHES DRAFTING
OCC Student Learning Civil Engineering



TONY MARTIN SELLS MILK FOR CREDIT
Works At Cal-Va Drive-In Dairy

Professors Woo Businesses In Work Experience Program

COSTA MESA—Professors at Orange Coast and Golden West Colleges are marching on the communities this semester—and believe it is working out pretty well for both sides.

More than 70 professors from the two colleges, located in the Coast Community College District, are visiting 800 businesses in the area to line up work stations in the schools' new Cooperative Work Experience Program.

The program started in September, 1970, now, less than two months later, more than 1,200 students are working part or full-time in the program. In addition to getting paid, they are earning college credit for working on jobs related to their majors or vocational goals.

Each instructor will make at least two visits during the semester to the place of employment of each student he is supervising. The instructor supervises an average of 20 students, in addition to handling a full teaching load.

During the first visit, the instructor plans a program of learning experiences with the student's supervisor on the job. The second visit, near the end of the semester, is to evaluate the progress of the student with the supervisor. During the semester the instructor also maintains contact with the student to help him with any problems and advise him.

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Vaugh Redding, who came out of private industry this year to head the district program, said he felt this was a positive way to involve the student with the establishment and vice versa.

"We know that there will be changes in both the educational system and the free enterprise system in the future," Redding said. "This work experience program should lead to constructive changes which will be acceptable to business and industry, to the young people of our community and to the educational leaders."

The student benefits in two major ways from the program. He can earn college credit for working. He gets one unit of credit for each five hours of work per week during the semester. A maximum of four units—20 hours per week—may be earned each semester. The colleges place a limit of 16 units of credit which may be earned toward the AA degree.

They also receive pay for the work they do. Many married veterans say the program enables them to remain in school and support a family. There is no standard rate of pay; this is determined by the student and the employer.

In addition to setting up a whole new program—and being deluged with 1,200 students when the original goal was 400—Garmon and Strandberg have been making their presence known in the community. Both have been working to find work stations and students to fill them. They also help the instructors coordinate the development and improvement of the program. They currently are developing an alternate plan, in which two students are placed in the same work station and swap back and forth until graduation, one working full time, while the other goes to school full time.

Their College Education Is Good Business

At first glance, Jeff Washington appears to be typical of many students who attend College of San Mateo: He carries a full academic load and works 30 hours a week.

But Jeff is not typical because he is participating in a $575,944 experiment by U.S. Office of Education that — if successful — will start a new style of education for thousands of junior colleges throughout the United States.

That experiment is called Cooperative Education, a work-and-study program that is now being tested on the junior college level by the three colleges of the San Mateo Junior College District — CSM, Canada, and Skyline — and the two colleges of the Orange Coast District in Southern California.

The five colleges have formed a consortium to test the program for a three-year period and now — half way through the first year — have 2,180 student participants.

Millions of people have worked while attending college. But very few of them ever had the opportunity to work at a job that relates directly to their academic major, to relate the abstractions of the classroom to the realistic challenges of the working world.

The concept has proved successful at several four-year institutions that have had similar programs for many years. But until now, such an extensive Cooperative Education Program has never been tried on the junior college level.

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"Ours is the first program in the United States where a major community college consortium has attempted to develop this concept on a statewide basis," says Dr. Robert Bennett, assistant to the chancellor of the SMJCD for resource development and project coordination, who oversees the local Cooperative Education Program.

The three colleges of SMJCD have 915 students enrolled in the program, and 33 faculty members aiding in the supervision and coordination of the students' activities during their spare time. Bennett says both figures represent a much higher level of participation than was expected at this point in the project.

Dr. Robert Bennett, who heads San Mateo Junior College District's Cooperative Education experiment, predicts 25 per cent of all college students will be involved in similar programs within ten years.

Under the Cooperative Education Program, students are placed in either part-time or full-time positions while attending college. If they work part-time, they take an academic work load that will enable them to perform both tasks successfully. If they work full-time, the students work a semester and then attend college for a semester.

A third group attends college at night while holding down full-time jobs. Their courses are related to current jobs or new career goals.

Whatever the case, the supervised students receive college credit for their work experience — as many as three units a semester — and a first-hand insight into what the "real world" is all about.

"This program gets the student involved in his career at an earlier stage of the game," says Bennett. "One of the highest priority items is to relate the college experience to the real needs out in the employment world."

Jeff Washington offers an example of what Dr. Bennett is talking about. A sophomore who plans to enter the computer field, he travels from his Menlo Park home to San Bruno to work 30 hours a week at a busy Standard Station on El Camino Real.

"The work experience gives students a better idea of what they want to concentrate on in college," says Washington, who hopes to eventually move into Standard's data processing operation.

"Most students aren't sure what they want to major in, and this gives tham a good chance to find out what their real interests are."

Eventually Jeff will have to take a job that relates directly to his academic major — that's part of the program. But the experience he is gaining now will benefit him wherever he works.

For every tree units of Cooperative Education credit he gets, Jeff must complete 12 units of academic work at CSM. And to get the work credit, Jeff must write a term paper on his work experience, receive a favorable evaulation from his employer, be observed on the job by a college coordinator, and receive a passing grade from both the college and his employer.

The employer plays a crucial role in the student's grade. He is asked to rate the student's quality of work, attitude, judgment, and other factors that determine an employee's performance. If the employer gives the student a low rating, he doesn't receive credit from the college.

If Cooperative Education gives a student the opportunity to relate the abstractions of the classroom to realistic work situations, it also helps him to find out if he's in the right field. Take Mrs. Miriam Conley of Redwood City, for example.

The mother of three boys, she decided she wanted to become a nurse. After attending some classes, she switched to occupational therapy and her current work assignment in the Cooperative Education Program has reassured her that she made the right decision.

"I really enjoy the work," says Mrs. Conley. "It's reinforced my decision to switch to occupational therapy. It's much more suited to my personality."

Mrs. Conley divides her time between Mills Hospital, San Mateo, and the Veterans Administration Hospital, Menlo Park, assisting the staff therapists in the patients' rehabilitation programs.

Gilberto Villarreo, head of the Cooperative Education program at College of San Mateo, interviews a student applicant.

Gilberto Villarreal, director of financial assistance at CSM and administrator of CSM's Cooperative Education Program, reports "more and more companies are coming around to the idea that the two-year student can be valuable in their companies. They're beginning to accept the idea of bringing in these new people and exposing themselves to new ideas.

"Students also bring a more practical view of business back to the classroom. It's great feedback."

Cooperative Education students can be found working in almost any type of business or industry on the Peninsula. Firms ranging in size from family business to large corporations such as IBM, Pacific Telephone, and Bank of America employ students through the program.

Statistically, business majors make up the highest percentage of students participating in the program. But the program also claims students from 15 other academic disciplines.

Lowell Mainland, a retired advertising executive, volunteered as part-time assistant and job finder for CSM's work-study project.

Bosses Give High Grades

Employers have also discovered that Cooperative Education is an effective means of recruiting workers who will already know the business when they finish their education. Students are encouraged to complete college studies before joining firms on a permanent basis, but studies at four-year colleges using the program indicate that from 50 to 75 per cent of the Cooperative Education students eventually go to work for their college employer.

While a growing number of business firms are volunteering job positions for the program, most of the jobs now held by students were developed through the efforts of faculty members who supervise the students and people like Lowell Mainland, Cooperative Education assistant at CSM. Dr. Bennett refers to Mainland as "a living, lifetime model of the cooperative plan in action."

Jeff Washington, a Cooperative Education student at College of San Mateo, works 30 hours a week at a Standard Station in San Bruno while attending CSM. Jeff says the work-and-learn program has been good for him and can be beneficial for any student "who isn't sure about what he wants to do in life."

Mrs. Miriam Conley, an occupational therapy student at College of San Mateo, assists a patient in a pottery making project during her work assignment at the Veteran's Administration Hospital, Menlo Park.

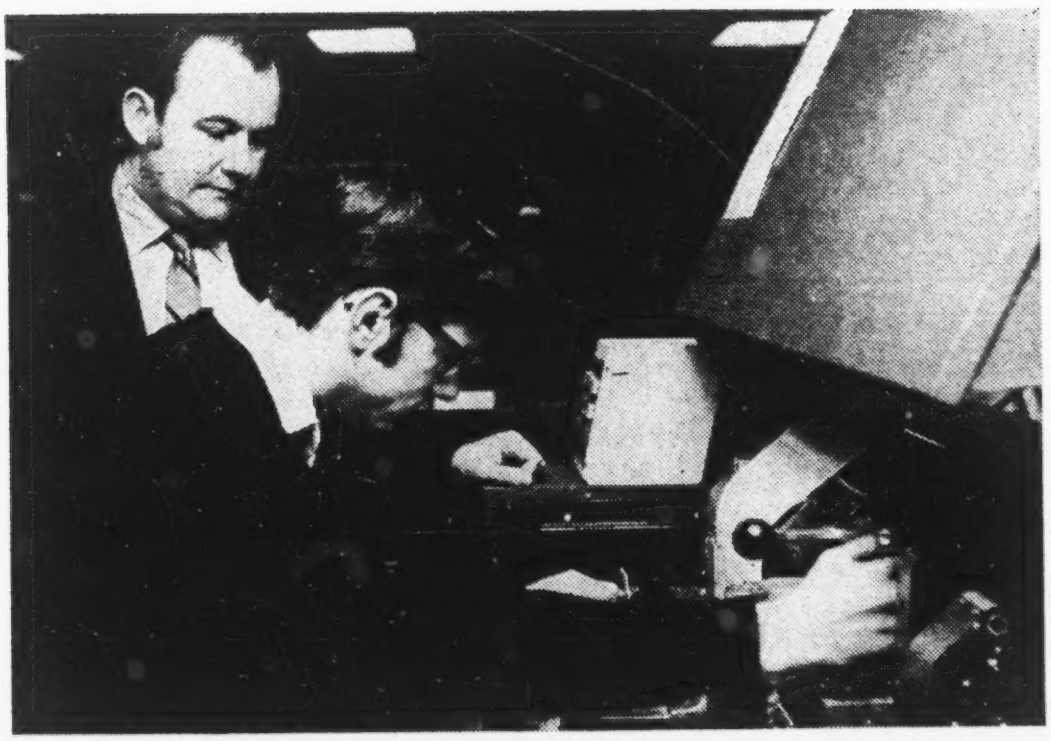
A graduate of Antioch College, one of the first of the four-year colleges to adopt the Cooperative Education program, Mainland started as a volunteer worker for the CSM program after retiring from his post as vice president of the J. Walter Thompson Co., the world's largest advertising agency.

Mainland's Bay Area business contacts have played a big part in getting the Cooperative Education Program off the ground. A thoughtful man, he still appreciates the worth of his own Cooperative Education after a 41-year career in the advertising field.

"It had several values," he says, "not the least of which was to help me get a job I could have never hoped to get.

"While in school, I found out I didn't want to do what I was aiming for when I started college. I also learned there are a great many different levels of jobs, all important in their own way.

"My attitudes toward people and the community as a whole were broadened through the cooperative



Harry J. Van Roy, a CSM Cooperative Education student, aligns a print form on an IBM 1403 Printer under the watchful eye of John Longero, an operations supervisor at Ampex Corp., Redwood City.

work experience. I honestly learned how to work on these jobs."

In addition to his other "part-time" duties, Mainland is one of the district's leading advocates of Cooperative Education.

"These kids are being turned on, and they are becoming better citizens because of it. I see it every day. Even some of our more skeptical teachers are being won over."

Many Peninsula business and industry leaders who have worked with students in the program are also enthusiastic.

"I was one of the real enthusiasts from the beginning, and I still am," says Jim Bailey, now manager of the South San Francisco plant for Pacific Telephone. When he was assigned to PT&T's Redwood City office, he employed several Cooperative Education students as engineering trainees.

"The kids have demonstrated the desire to prove themselves," says Bailey. "They are more mature, more determined, and they have good aptitudes.

"We've been tough with them. When they went to work for me, I asked them to prove themselves on the job, and I asked for a promise that they finish their educations. They all persevered.

Ted Werner, manager of Standard Station No. 2759, San Bruno, recently took on his second Cooperative Education student He says:

"I think it's a great idea ... It gives students a real idea of what everyday life is all about. I wouldn't hesitate to hire another Cooperative Education student in the future."

Such statements please Dr. Bennett, particularly when they come so early in the three-year project. As federal funding increases in the next two fiscal years, the project will concentrate more on the recruitment of disadvantaged students in the program.

Emphasis will also be placed on solving specialized worker training problems through the program, as well as educational television for the upgrading of job skills.

Unlike other experimental programs that have a tendency to disappear when the federal grants run out, Cooperative Education can look forward to a promising future in California. Under a bill passed during the last session of the California Legislature, junior college districts will be able to collect state support for students enrolled in the program.

Dr. Bennett fully expects to find 25 per cent of all California college student enrolled in similar programs within the next 10 years.

"Cooperative Education is a way in which colleges can offer new curricula at very, very low cost," he says. "The student has direct access to the latest business procedures, industrial techniques, and they get to work with highly sophisticated equipment that wouldn't be available on campus.

SMJCD students are testing the theory now. In view of their preliminary successes, Dr. Bennett and his colleagues believe these pioneers are paving the way for many more thousands of students to find out what the working world is all about.